

CLAIMS

What is claimed is:

1. An overheated steam oven, having a cabinet to define a cooking cavity therein and an overheated steam generator to supply overheated steam into the cooking cavity, comprising:
 - a steam generating vessel having a predetermined amount of water contained therein;
 - an outlet, connected to the steam generating vessel, to communicate with the cooking cavity; and
 - first and second heaters to produce steam from the water contained in the steam generating vessel, and to overheat the produced steam.
2. The overheated steam oven according to claim 1, wherein the steam generating vessel provides insulation.
3. The overheated steam oven according to claim 2, wherein the steam generating vessel comprises:
 - an inner vessel part which contains the first heater and the second heater therein; and
 - an outer vessel part which surrounds and is separated from an outer surface of the inner vessel part, with space between the inner vessel part and the outer vessel part being a vacuum.
4. The overheated steam oven according to claim 3, further comprising a shielding material to fill the space between the inner vessel part and the outer vessel part, to intercept radiant heat.
5. The overheated steam oven according to claim 1, wherein the first heater is installed in the steam generating vessel to be immersed in the water contained in the steam generating vessel, and the second heater is mounted to the upper portion of the steam generating vessel to overheat the steam generated by the first heater, and the first heater and the second heater each has a spiral shape.

6. The overheated steam oven according to claim 1, wherein the first heater and the second heater are supported by a lower plate which closes a lower end of the steam generating vessel.

7. The overheated steam oven according to claim 1, further comprising a feed pipe and a drain pipe respectively coupled to the steam generating vessel, to feed and drain water into and from the steam generating vessel.

8. The overheated steam oven according to claim 1, further comprising a water level sensor installed in the steam generating vessel, to monitor a level of the water contained in the steam generating vessel.

9. The overheated steam oven according to claim 1, further comprising a steam inlet part provided on the rear wall of the cooling cavity, wherein the steam generating vessel comprises a bent part, which is formed by bending an upper end of the steam generating vessel toward a rear wall of the cooking cavity, the bent part being connected at a front end thereof to the steam inlet port.

10. The overheated steam oven according to claim 1, further comprising an exhaust path, provided at an upper portion in the cooking cavity, to discharge the steam from the cooking cavity to an outside of the cooking cavity.

11. The overheated steam oven according to claim 1, further comprising each of walls of the cooking cavity comprising a multi-layered panel that comprises a plurality of sheets spaced apart from each other to insulate the cooking cavity.

12. An overheated steam oven, including a cabinet to define a cooking cavity therein, and an overheated steam generator to supply overheated steam into the cooking cavity, the overheated steam generator comprising:

a steam generating vessel having upper and lower ends, through which an outlet communicates with the cooking cavity, and containing a predetermined amount of water therein;

a first heater installed under the lower end of the steam generating vessel to boil the water contained in the steam generating vessel, thus generating steam; and

a second heater mounted to the upper portion in the steam generating vessel, to overheat steam generated by the first heater.

13. The overheated steam oven according to claim 12, wherein the steam generating vessel provides insulation.

14. The overheated steam oven according to claim 13, wherein the steam generating vessel comprises:

an inner vessel part which contains the first heater and the second heater therein; and
an outer vessel part which surrounds and is separated from an outer surface of the inner vessel part, with space between the inner vessel part and the outer vessel part being a vacuum.

15. The overheated steam oven according to claim 14, further comprising a shielding material to fill the space between the inner vessel part and the outer vessel part, to intercept radiant heat.

16. The overheated steam oven according to claim 12, wherein the first heater is supported by a lower plate which closes the lower end of the steam generating vessel, and the second heater, in the upper portion of the steam generating vessel, has a spiral shape and is supported at a terminal thereof by the lower plate.

17. The overheated steam oven according to claim 12, further comprising a feed pipe and a drain pipe respectively coupled to the steam generating vessel to feed and drain water into and from the steam generating vessel.

18. The overheated steam oven according to claim 12, further comprising a water level sensor installed in the steam generating vessel to monitor a level of the water contained in the steam generating vessel.

19. The overheated steam oven according to claim 12, further comprising a steam inlet part provided on the rear wall of the cooling cavity, wherein the steam generating vessel comprises a bent part, which is formed by bending an upper end of the steam generating vessel toward a rear wall of the cooking cavity, the bent part being connected at a front end thereof to the steam inlet port.

20. The overheated steam oven according to claim 12, further comprising an exhaust path, provided at an upper portion in the cooking cavity, to discharge the steam from the cooking cavity to an outside of the cooking cavity.

21. The overheated steam oven according to claim 12, wherein each of walls of the cooking cavity comprises a multi-layered panel that comprises a plurality of sheets spaced apart from each other to insulate the cooking cavity.

22. An overheated steam oven, having a cabinet to define a cooking cavity therein and an overheated steam generator to supply overheated steam into the cooking cavity, comprising:

a steam generating vessel, having a lower end and an upper portion, containing a predetermined amount of water therein;

an outlet, connected to the steam generating vessel, to communicate with the cooking cavity; and

first and second heaters to produce steam from the water contained in the steam generating vessel, and to overheat the produced steam, wherein

the production of steam from the water takes place under the lower end of the steam generating vessel, and

the overheating of the produced steam takes place in the upper portion of the steam generating vessel.